

## ANALYTICAL REPORT

Project No. Site 995

Waimanalo Gulch Landfill

Lot #: D8B110153

Stormwater

Suzan Pankenier

Waste Management, Inc.  
Waimanalo Gulch Landfill  
92-960 Farrington Highway  
Kapolei, HI 96707

Cc: John Fong, Earth Tech

TestAmerica Denver



Betsy Sara  
Project Manager

March 5, 2008

# Table Of Contents

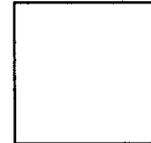
## *Standard Deliverables*

### Report Contents

### Total Number of Pages

#### **Standard Deliverables**

*The Cover Letter and the Report Cover page are considered integral parts of this Standard Deliverable package. This report is incomplete unless all pages indicated in this Table of Contents are included.*



- **Table of Contents**
- **Case Narrative**
- **Executive Summary – Detection Highlights**
- **Methods Summary**
- **Method/Analyst Summary**
- **Lot Sample Summary**
- **Analytical Results**
- **QC Data Association Summary**
- **Chain-of-Custody**

## Case Narrative

Enclosed is the report for one sample received at TestAmerica Denver laboratory on February 11, 2008. The results included in this report have been reviewed for compliance with TestAmerica Denver's Laboratory Quality Manual. The results relate only to the samples in this report and meet all requirements of NELAC and any exceptions are noted below.

This report may include data with reporting limits (RLs) less than TestAmerica Denver's standard reporting limits. These data and reporting limits are being used specifically to meet the needs of this project. Note that, data are not customarily reported to these levels without qualifiers, because they are inherently less reliable and potentially less defensible than the latest industry standards require. Please contact TestAmerica Denver for more details.

Dilution factors and footnotes have been provided to assist in the interpretation of the results. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interferences or analytes present at concentrations above the linear calibration curve, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Denver utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. A summary of quality control parameters is provided below.

This report shall not be reproduced except in full, without the written approval of the laboratory.

### Quality Control Summary for Lot D8B110153

#### Sample Receiving

The cooler temperature upon receipt at the Denver laboratory was 3.6°C.

All sample bottles were received in acceptable condition.

#### Holding Times

All holding times were met.

#### Method Blanks

Total Iron Method 200.7 and Total Kjeldahl Nitrogen (TKN) Method 351.2 were detected in the Method Blanks below the project established reporting limits. No corrective action is taken for any values in Method Blanks that are below the requested reporting limits. The Method Blank data are included at the end of this report.

All other Method Blanks were within established control limits.

#### Laboratory Control Samples (LCS)

All Laboratory Control Samples were within established control limits.

Lot #: D8B110153

**Matrix Spike (MS) and Matrix Spike Duplicate (MSD)**

The method required MS/MSD could not be performed for Method 625 and Method 1664A HEM due to insufficient sample volume, however, LCS/LCSD pairs were analyzed to demonstrate method precision and accuracy.

The percent recoveries and/or the relative percent difference of the MS/MSD performed on sample WGSL-DB01E were not calculated for Total Iron during Method 200.7 analysis because the sample concentration was greater than four times the spike amount.

The Matrix Spike and Matrix Spike Duplicate performed on a sample from another client exhibited MS and MSD recoveries outside control limits for Ammonia Method 350.1. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, these anomalies may be due to matrix interference and no corrective action was taken.

Due to the result concentration exceeding the calibration range the MS/MSD results for Ammonia Method 350.1 are estimated. The Method 350.1 MS/MSD was performed on a sample from another client.

All other MS and MSD samples were within established control limits.

# EXECUTIVE SUMMARY - Detection Highlights

D8B110153

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
<b>WGSL-DB01E 02/07/08 19:00 001</b>				
Iron	53000 J	100	ug/L	MCAWW 200.7
Zinc	99	20	ug/L	MCAWW 200.7
Total Suspended Solids	620 Q	8.0	mg/L	MCAWW 160.2
Total Kjeldahl Nitrogen	3.9 J	0.50	mg/L	MCAWW 351.2
Nitrate-Nitrite	2.7	0.10	mg/L	MCAWW 353.2
Total phosphorus	0.25	0.050	mg/L	MCAWW 365.3
HEM (Oil and Grease)	4.8 B	5.0	mg/L	CFR136A 1664A HEM
Ammonia as N	0.12	0.10	mg/L	MCAWW 350.1
Chemical Oxygen Demand (COD)	54	20	mg/L	MCAWW 410.4

# METHODS SUMMARY

D8B110153

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Base/Neutrals and Acids	CFR136A 625	CFR136A 625
Chemical Oxygen Demand	MCAWW 410.4	MCAWW 410.4
Inductively Coupled Plasma (ICP) Metals	MCAWW 200.7	MCAWW 200.7
N-Hexane Extractable Material (1664A)	CFR136A 1664A H	CFR136A 1664
Nitrate-Nitrite	MCAWW 353.2	MCAWW 353.2
Nitrogen, Ammonia	MCAWW 350.1	MCAWW 350.1
Non-Filterable Residue (TSS)	MCAWW 160.2	MCAWW 160.2
Total phosphorus	MCAWW 365.3	MCAWW 365.3
Total Kjeldahl Nitrogen	MCAWW 351.2	MCAWW 351.2

## References:

CFR136A "Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

# METHOD / ANALYST SUMMARY

D8B110153

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
CFR136A 1664A HEM	Erica Arteaga	005682
CFR136A 625	Mike G. Hoffman	001880
MCAWW 160.2	Keri Dwire	008821
MCAWW 200.7	Lynn-Anne Trudell	6645
MCAWW 350.1	Kevin Bloom	006134
MCAWW 351.2	Claire Likar	004382
MCAWW 353.2	Kevin Bloom	006134
MCAWW 365.3	Kim Bertha	007985
MCAWW 410.4	Kim Bertha	007985

## References:

CFR136A "Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

# SAMPLE SUMMARY

D8B110153

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
KGW26	001	WGSL-DB01E	02/07/08	19:00

**NOTE(S) :**

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Waste Management, Inc.

Client Sample ID: WGSL-DB01E

GC/MS Semivolatiles

Lot-Sample #....: D8B110153-001    Work Order #....: KGW261AJ    Matrix.....: WATER  
Date Sampled...: 02/07/08 19:00    Date Received...: 02/11/08  
Prep Date.....: 02/12/08    Analysis Date...: 02/19/08  
Prep Batch #....: 8043099    Analysis Time...: 02:31  
Dilution Factor: 1  
Method.....: CFR136A 625

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Alpha-Terpineol	ND	10	ug/L	2.0
Benzoic acid	ND	50	ug/L	20
Phenol	ND	10	ug/L	0.31
4-Methylphenol	ND	10	ug/L	0.74

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
2-Fluorophenol	73	(49 - 120)
Phenol-d5	79	(54 - 120)
Nitrobenzene-d5	73	(56 - 120)
2-Fluorobiphenyl	78	(52 - 120)
2,4,6-Tribromophenol	97	(56 - 120)
Terphenyl-d14	60	(50 - 120)

Waste Management, Inc.

Client Sample ID: WGSL-DB01E

TOTAL Metals

Lot-Sample #...: D8B110153-001

Matrix.....: WATER

Date Sampled...: 02/07/08 19:00 Date Received...: 02/11/08

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 8043136						
Iron	53000 J	100	ug/L	MCAWW 200.7	02/14/08	KGW261AK
		Dilution Factor: 1		Analysis Time...: 16:37	MDL.....: 22	
Zinc	99	20	ug/L	MCAWW 200.7	02/14/08	KGW261AL
		Dilution Factor: 1		Analysis Time...: 16:37	MDL.....: 4.5	

**NOTE(S) :**

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Waste Management, Inc.

Client Sample ID: WGSL-DB01E

General Chemistry

Lot-Sample #...: D8B110153-001    Work Order #...: KGW26    Matrix.....: WATER  
 Date Sampled...: 02/07/08 19:00    Date Received...: 02/11/08

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Ammonia as N	0.12	0.10	mg/L	MCAWW 350.1	02/15/08	8049213
			Dilution Factor: 1	Analysis Time..: 10:00	MDL.....: 0.022	
Chemical Oxygen Demand (COD)	54	20	mg/L	MCAWW 410.4	02/13-02/15/08	8049238
			Dilution Factor: 1	Analysis Time..: 07:00	MDL.....: 4.1	
HEM (Oil and Grease)	4.8 B	5.0	mg/L	CFR136A 1664A HEM	02/13/08	8044191
			Dilution Factor: 1	Analysis Time..: 11:00	MDL.....: 1.4	
Nitrate-Nitrite	2.7	0.10	mg/L	MCAWW 353.2	02/15/08	8049268
			Dilution Factor: 1	Analysis Time..: 10:00	MDL.....: 0.019	
Total phosphorus	0.25	0.050	mg/L	MCAWW 365.3	02/12-02/15/08	8046376
			Dilution Factor: 1	Analysis Time..: 11:00	MDL.....: 0.0050	
Total Kjeldahl Nitrogen	3.9 J	0.50	mg/L	MCAWW 351.2	02/25-02/26/08	8058179
			Dilution Factor: 1	Analysis Time..: 15:00	MDL.....: 0.25	
Total Suspended Solids	620 Q	8.0	mg/L	MCAWW 160.2	02/13/08	8044527
			Dilution Factor: 2	Analysis Time..: 19:00	MDL.....: 2.2	

NOTE (S) :

- RL Reporting Limit
- B Estimated result. Result is less than RL.
- J Method blank contamination. The associated method blank contains the target analyte at a reportable level.
- Q Elevated reporting limit. The reporting limit is elevated due to high analyte levels.

# QC DATA ASSOCIATION SUMMARY

D8B110153

## Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	WATER	MCAWW 160.2		8044527	8045198
	WATER	MCAWW 200.7		8043136	8043070
	WATER	MCAWW 351.2		8058179	8058083
	WATER	MCAWW 353.2		8049268	8049162
	WATER	CFR136A 625		8043099	
	WATER	MCAWW 365.3		8046376	8046242
	WATER	CFR136A 1664A HEM		8044191	
	WATER	MCAWW 350.1		8049213	8049129
	WATER	MCAWW 410.4		8049238	8049147

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: D8B110153  
MB Lot-Sample #: D8B120000-099  
Analysis Date...: 02/19/08  
Dilution Factor: 1

Work Order #...: KGXVV1AA  
Prep Date.....: 02/12/08  
Prep Batch #...: 8043099

Matrix.....: WATER  
Analysis Time...: 02:12

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>
		<u>LIMIT</u>	<u>UNITS</u>	
Phenol	ND	10	ug/L	CFR136A 625
Benzoic acid	ND	50	ug/L	CFR136A 625
4-Methylphenol	ND	10	ug/L	CFR136A 625
Alpha-Terpineol	ND	10	ug/L	CFR136A 625

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>
2-Fluorophenol	91	(49 - 120)
Phenol-d5	96	(54 - 120)
Nitrobenzene-d5	97	(56 - 120)
2-Fluorobiphenyl	90	(52 - 120)
2,4,6-Tribromophenol	102	(56 - 120)
Terphenyl-d14	104	(50 - 120)

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: D8B110153      Work Order #...: KGXVV1AC-LCS      Matrix.....: WATER  
 LCS Lot-Sample#: D8B120000-099      KGXVV1AD-LCSD  
 Prep Date.....: 02/12/08      Analysis Date...: 02/18/08  
 Prep Batch #...: 8043099      Analysis Time...: 15:37  
 Dilution Factor: 1

PARAMETER	PERCENT	RECOVERY	RPD		METHOD
	RECOVERY	LIMITS	RPD	LIMITS	
4-Methylphenol	90	(58 - 120)			CFR136A 625
	88	(58 - 120)	1.7	(0-39)	CFR136A 625
Phenol	90	(58 - 112)			CFR136A 625
	89	(58 - 112)	2.1	(0-30)	CFR136A 625
2-Chlorophenol	89	(57 - 120)			CFR136A 625
	87	(57 - 120)	2.5	(0-30)	CFR136A 625
1,3-Dichlorobenzene	73	(45 - 120)			CFR136A 625
	72	(45 - 120)	1.5	(0-47)	CFR136A 625
1,4-Dichlorobenzene	73	(45 - 120)			CFR136A 625
	72	(45 - 120)	1.6	(0-49)	CFR136A 625
1,2-Dichlorobenzene	77	(48 - 120)			CFR136A 625
	75	(48 - 120)	2.4	(0-42)	CFR136A 625
bis(2-Chloroisopropyl) ether	92	(57 - 120)			CFR136A 625
	90	(57 - 120)	2.6	(0-30)	CFR136A 625
N-Nitrosodi-n-propyl- amine	93	(58 - 120)			CFR136A 625
	92	(58 - 120)	1.1	(0-30)	CFR136A 625
Hexachloroethane	68	(43 - 113)			CFR136A 625
	68	(43 - 113)	1.2	(0-52)	CFR136A 625
Nitrobenzene	91	(58 - 120)			CFR136A 625
	90	(58 - 120)	1.2	(0-30)	CFR136A 625
Isophorone	91	(54 - 120)			CFR136A 625
	90	(54 - 120)	0.61	(0-30)	CFR136A 625
2-Nitrophenol	95	(59 - 120)			CFR136A 625
	93	(59 - 120)	1.4	(0-30)	CFR136A 625
2,4-Dimethylphenol	80	(44 - 119)			CFR136A 625
	79	(44 - 119)	0.96	(0-35)	CFR136A 625
bis(2-Chloroethoxy) methane	89	(56 - 120)			CFR136A 625
	87	(56 - 120)	2.8	(0-30)	CFR136A 625
2,4-Dichlorophenol	95	(60 - 120)			CFR136A 625
	92	(60 - 120)	3.0	(0-30)	CFR136A 625
1,2,4-Trichloro- benzene	80	(50 - 120)			CFR136A 625
	78	(50 - 120)	2.1	(0-35)	CFR136A 625

(Continued on next page)





LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: D8B110153      Work Order #...: KGXVV1AC-LCS      Matrix.....: WATER  
 LCS Lot-Sample#: D8B120000-099      KGXVV1AD-LCSD

PARAMETER	PERCENT	RECOVERY	RPD		METHOD
	RECOVERY	LIMITS	RPD	LIMITS	
N-Nitrosodimethylamine	88	(52 - 120)			CFR136A 625
	87	(52 - 120)	1.7	(0-30)	CFR136A 625
N-Nitrosodiphenylamine	80	(10 - 203)			CFR136A 625
	77	(10 - 203)	4.0	(0-50)	CFR136A 625
2-Methyl-4,6-dinitro-phenol	98	(41 - 120)			CFR136A 625
	93	(41 - 120)	5.8	(0-55)	CFR136A 625
2-Methylphenol	87	(56 - 120)			CFR136A 625
	86	(56 - 120)	2.2	(0-35)	CFR136A 625
n-Decane	61	(28 - 120)			CFR136A 625
	61	(28 - 120)	0.14	(0-61)	CFR136A 625
2-Methylnaphthalene	88	(57 - 120)			CFR136A 625
	87	(57 - 120)	1.0	(0-30)	CFR136A 625
2,6-Dinitrotoluene	94	(61 - 120)			CFR136A 625
	90	(61 - 120)	4.0	(0-30)	CFR136A 625
Benzo(a)anthracene	94	(60 - 120)			CFR136A 625
	90	(60 - 120)	4.7	(0-30)	CFR136A 625
bis(2-Chloroethyl)-ether	87	(55 - 120)			CFR136A 625
	84	(55 - 120)	3.1	(0-30)	CFR136A 625

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
2-Fluorophenol	94	(53 - 120)
	89	(53 - 120)
Phenol-d5	95	(57 - 120)
	90	(57 - 120)
Nitrobenzene-d5	92	(59 - 120)
	88	(59 - 120)
2-Fluorobiphenyl	91	(49 - 120)
	85	(49 - 120)
2,4,6-Tribromophenol	102	(50 - 120)
	95	(50 - 120)
Terphenyl-d14	99	(63 - 120)
	93	(63 - 120)

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.  
 Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: D8B110153      Work Order #...: KGXVV1AC-LCS      Matrix.....: WATER  
 LCS Lot-Sample#: D8B120000-099      KGXVV1AD-LCSD  
 Prep Date.....: 02/12/08      Analysis Date...: 02/18/08  
 Prep Batch #...: 8043099      Analysis Time...: 15:37  
 Dilution Factor: 1

PARAMETER	SPIKE	MEASURED	UNITS	PERCENT	RPD	METHOD
	AMOUNT	AMOUNT		RECOVERY		
4-Methylphenol	100	90.0	ug/L	90		CFR136A 625
	100	88.4	ug/L	88	1.7	CFR136A 625
Phenol	100	90.4	ug/L	90		CFR136A 625
	100	88.5	ug/L	89	2.1	CFR136A 625
2-Chlorophenol	100	89.1	ug/L	89		CFR136A 625
	100	86.9	ug/L	87	2.5	CFR136A 625
1,3-Dichlorobenzene	100	72.9	ug/L	73		CFR136A 625
	100	71.8	ug/L	72	1.5	CFR136A 625
1,4-Dichlorobenzene	100	72.9	ug/L	73		CFR136A 625
	100	71.7	ug/L	72	1.6	CFR136A 625
1,2-Dichlorobenzene	100	77.1	ug/L	77		CFR136A 625
	100	75.2	ug/L	75	2.4	CFR136A 625
bis(2-Chloroisopropyl) ether	100	92.1	ug/L	92		CFR136A 625
	100	89.7	ug/L	90	2.6	CFR136A 625
N-Nitrosodi-n-propyl- amine	100	92.7	ug/L	93		CFR136A 625
	100	91.7	ug/L	92	1.1	CFR136A 625
Hexachloroethane	100	68.3	ug/L	68		CFR136A 625
	100	67.5	ug/L	68	1.2	CFR136A 625
Nitrobenzene	100	91.1	ug/L	91		CFR136A 625
	100	90.0	ug/L	90	1.2	CFR136A 625
Isophorone	100	90.6	ug/L	91		CFR136A 625
	100	90.0	ug/L	90	0.61	CFR136A 625
2-Nitrophenol	100	94.5	ug/L	95		CFR136A 625
	100	93.2	ug/L	93	1.4	CFR136A 625
2,4-Dimethylphenol	100	79.7	ug/L	80		CFR136A 625
	100	78.9	ug/L	79	0.96	CFR136A 625
bis(2-Chloroethoxy) methane	100	89.5	ug/L	89		CFR136A 625
	100	87.0	ug/L	87	2.8	CFR136A 625
2,4-Dichlorophenol	100	95.1	ug/L	95		CFR136A 625
	100	92.3	ug/L	92	3.0	CFR136A 625
1,2,4-Trichloro- benzene	100	79.8	ug/L	80		CFR136A 625
	100	78.1	ug/L	78	2.1	CFR136A 625

(Continued on next page)





**LABORATORY CONTROL SAMPLE DATA REPORT**

**GC/MS Semivolatiles**

Client Lot #...: D8B110153      Work Order #...: KGXVV1AC-LCS      Matrix.....: WATER  
 LCS Lot-Sample#: D8B120000-099      KGXVV1AD-LCSD

<u>PARAMETER</u>	<u>SPIKE AMOUNT</u>	<u>MEASURED AMOUNT</u>	<u>UNITS</u>	<u>PERCENT RECOVERY</u>	<u>RPD</u>	<u>METHOD</u>
<b>N-Nitrosodimethylamine</b>	100	88.3	ug/L	88		CFR136A 625
	100	86.7	ug/L	87	1.7	CFR136A 625
<b>N-Nitrosodiphenylamine</b>	100	80.1	ug/L	80		CFR136A 625
	100	77.0	ug/L	77	4.0	CFR136A 625
<b>2-Methyl-4,6-dinitro-phenol</b>	100	98.2	ug/L	98		CFR136A 625
	100	92.7	ug/L	93	5.8	CFR136A 625
<b>2-Methylphenol</b>	100	87.5	ug/L	87		CFR136A 625
	100	85.5	ug/L	86	2.2	CFR136A 625
<b>n-Decane</b>	100	60.6	ug/L	61		CFR136A 625
	100	60.6	ug/L	61	0.14	CFR136A 625
<b>2-Methylnaphthalene</b>	100	88.2	ug/L	88		CFR136A 625
	100	87.3	ug/L	87	1.0	CFR136A 625
<b>2,6-Dinitrotoluene</b>	100	93.6	ug/L	94		CFR136A 625
	100	89.9	ug/L	90	4.0	CFR136A 625
<b>Benzo (a) anthracene</b>	100	94.0	ug/L	94		CFR136A 625
	100	89.7	ug/L	90	4.7	CFR136A 625
<b>bis (2-Chloroethyl) - ether</b>	100	86.7	ug/L	87		CFR136A 625
	100	84.1	ug/L	84	3.1	CFR136A 625

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
2-Fluorophenol	94	(53 - 120)
	89	(53 - 120)
Phenol-d5	95	(57 - 120)
	90	(57 - 120)
Nitrobenzene-d5	92	(59 - 120)
	88	(59 - 120)
2-Fluorobiphenyl	91	(49 - 120)
	85	(49 - 120)
2,4,6-Tribromophenol	102	(50 - 120)
	95	(50 - 120)
Terphenyl-d14	99	(63 - 120)
	93	(63 - 120)

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: D8B110153

Matrix.....: WATER

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
<b>MB Lot-Sample #:</b> D8B120000-136 <b>Prep Batch #...</b> : 8043136						
Iron	32 B	100	ug/L	MCAWW 200.7	02/14/08	KGXX31AA
		Dilution Factor: 1				
		Analysis Time...: 15:45				
Zinc	ND	20	ug/L	MCAWW 200.7	02/14/08	KGXX31AC
		Dilution Factor: 1				
		Analysis Time...: 15:45				

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D8B110153

Matrix.....: WATER

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
<b>LCS Lot-Sample#:</b> D8B120000-136 <b>Prep Batch #...:</b> 8043136					
Iron	99	(89 - 115)	MCAWW 200.7	02/14/08	KGXX31AD
		Dilution Factor: 1	Analysis Time...: 15:50		
Zinc	94	(85 - 111)	MCAWW 200.7	02/14/08	KGXX31AE
		Dilution Factor: 1	Analysis Time...: 15:50		

**NOTE(S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

**LABORATORY CONTROL SAMPLE DATA REPORT**

**TOTAL Metals**

Client Lot #...: D8B110153

Matrix.....: WATER

<u>PARAMETER</u>	<u>SPIKE AMOUNT</u>	<u>MEASURED AMOUNT</u>	<u>UNITS</u>	<u>PERCNT RECVRY</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
<b>LCS Lot-Sample#:</b> D8B120000-136 <b>Prep Batch #...:</b> 8043136							
Iron	1000	990	ug/L	99	MCAWW 200.7	02/14/08	KGXX31AD
				Dilution Factor: 1	Analysis Time...: 15:50		
Zinc	500	469	ug/L	94	MCAWW 200.7	02/14/08	KGXX31AE
				Dilution Factor: 1	Analysis Time...: 15:50		

**NOTE (S) :**

---

Calculations are performed before rounding to avoid round-off errors in calculated results.

**MATRIX SPIKE SAMPLE EVALUATION REPORT**

**TOTAL Metals**

Client Lot #...: D8B110153

Matrix.....: WATER

Date Sampled...: 02/07/08 19:00 Date Received...: 02/11/08

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
<b>MS Lot-Sample #: D8B110153-001 Prep Batch #...: 8043136</b>							
Iron	NC,MSB	(89 - 115)			MCAWW 200.7	02/14/08	KGW261AM
	NC,MSB	(89 - 115)		(0-20)	MCAWW 200.7	02/14/08	KGW261AN
				Dilution Factor: 1			
				Analysis Time...: 16:47			
Zinc	98	(85 - 111)			MCAWW 200.7	02/14/08	KGW261AP
	99	(85 - 111)	0.95	(0-20)	MCAWW 200.7	02/14/08	KGW261AQ
				Dilution Factor: 1			
				Analysis Time...: 16:47			

**NOTE(S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD were not calculated because the sample amount was greater than four times the spike amount.

**MATRIX SPIKE SAMPLE DATA REPORT**

**TOTAL Metals**

Client Lot #...: D8B110153

Matrix.....: WATER

Date Sampled...: 02/07/08 19:00 Date Received...: 02/11/08

PARAMETER	AMOUNT	SAMPLE SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
-----------	--------	------------------	---------------	-------	---------------	-----	--------	----------------------------	--------------

MS Lot-Sample #: D8B110153-001 Prep Batch #...: 8043136

Iron

53000	1000	58800	ug/L				MCAWW 200.7	02/14/08	KGW261AM
Qualifiers: NC,MSB									
53000	1000	58800	ug/L				MCAWW 200.7	02/14/08	KGW261AN
Qualifiers: NC,MSB									
Dilution Factor: 1									
Analysis Time...: 16:47									

Zinc

99	500	588	ug/L	98			MCAWW 200.7	02/14/08	KGW261AP
99	500	593	ug/L	99	0.95		MCAWW 200.7	02/14/08	KGW261AQ
Dilution Factor: 1									
Analysis Time...: 16:47									

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD were not calculated because the sample amount was greater than four times the spike amount.

**METHOD BLANK REPORT**

**General Chemistry**

**Client Lot #...: D8B110153**

**Matrix.....: WATER**

PARAMETER	RESULT	REPORTING		METHOD	PREPARATION-	PREP
		LIMIT	UNITS		ANALYSIS DATE	BATCH #
Ammonia as N	ND	Work Order #: KG8XE1AA 0.10	mg/L	MB Lot-Sample #: D8B180000-213 MCAWW 350.1	D8B180000-213 02/15/08	8049213
		Dilution Factor: 1		Analysis Time...: 10:00		
Chemical Oxygen Demand (COD)	ND	Work Order #: KG80V1AA 20	mg/L	MB Lot-Sample #: D8B180000-238 MCAWW 410.4	D8B180000-238 02/13-02/15/08	8049238
		Dilution Factor: 1		Analysis Time...: 07:00		
HEM (Oil and Grease)	ND	Work Order #: KG2TQ1AA 5.0	mg/L	MB Lot-Sample #: D8B130000-191 CFR136A 1664A HEM	D8B130000-191 02/13/08	8044191
		Dilution Factor: 1		Analysis Time...: 11:00		
Nitrate-Nitrite	ND	Work Order #: KG8311AA 0.10	mg/L	MB Lot-Sample #: D8B180000-268 MCAWW 353.2	D8B180000-268 02/15/08	8049268
		Dilution Factor: 1		Analysis Time...: 10:00		
Total phosphorus	ND	Work Order #: KG7GN1AA 0.050	mg/L	MB Lot-Sample #: D8B150000-376 MCAWW 365.3	D8B150000-376 02/12-02/15/08	8046376
		Dilution Factor: 1		Analysis Time...: 11:00		
Total Kjeldahl Nitrogen	0.29 B	Work Order #: KHNX91AA 0.50	mg/L	MB Lot-Sample #: D8B270000-179 MCAWW 351.2	D8B270000-179 02/25-02/26/08	8058179
		Dilution Factor: 1		Analysis Time...: 15:00		
Total Suspended Solids	ND	Work Order #: KG4701AA 4.0	mg/L	MB Lot-Sample #: D8B130000-527 MCAWW 160.2	D8B130000-527 02/13/08	8044527
		Dilution Factor: 1		Analysis Time...: 19:00		

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

**LABORATORY CONTROL SAMPLE EVALUATION REPORT**

**General Chemistry**

Lot-Sample #...: D8B110153

Matrix.....: WATER

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Ammonia as N		WO#:KG8XE1AC-LCS/KG8XE1AD-LCSD LCS Lot-Sample#: D8B180000-213					
	101	(90 - 110)			MCAWW 350.1	02/15/08	8049213
	100	(90 - 110)	1.0	(0-10)	MCAWW 350.1	02/15/08	8049213
		Dilution Factor: 1		Analysis Time...: 10:00			
Chemical Oxygen Demand (COD)		WO#:KG80V1AC-LCS/KG80V1AD-LCSD LCS Lot-Sample#: D8B180000-238					
	107	(80 - 115)			MCAWW 410.4	02/13-02/15/08	8049238
	105	(80 - 115)	2.0	(0-11)	MCAWW 410.4	02/13-02/15/08	8049238
		Dilution Factor: 1		Analysis Time...: 07:00			
HEM (Oil and Grease)		WO#:KG2TQ1AC-LCS/KG2TQ1AD-LCSD LCS Lot-Sample#: D8B130000-191					
	94	(82 - 103)			CFR136A 1664A HEM	02/13/08	8044191
	91	(82 - 103)	3.0	(0-47)	CFR136A 1664A HEM	02/13/08	8044191
		Dilution Factor: 1		Analysis Time...: 11:00			
Nitrate-Nitrite		WO#:KG8311AC-LCS/KG8311AD-LCSD LCS Lot-Sample#: D8B180000-268					
	105	(90 - 112)			MCAWW 353.2	02/15/08	8049268
	104	(90 - 112)	0.98	(0-10)	MCAWW 353.2	02/15/08	8049268
		Dilution Factor: 1		Analysis Time...: 10:00			
Total phosphorus		WO#:KG7GN1AC-LCS/KG7GN1AD-LCSD LCS Lot-Sample#: D8B150000-376					
	91	(90 - 110)			MCAWW 365.3	02/12-02/15/08	8046376
	90	(90 - 110)	0.88	(0-20)	MCAWW 365.3	02/12-02/15/08	8046376
		Dilution Factor: 1		Analysis Time...: 11:00			
Total Kjeldahl Nitrogen		WO#:KHNX91AC-LCS/KHNX91AD-LCSD LCS Lot-Sample#: D8B270000-179					
	108	(77 - 115)			MCAWW 351.2	02/25-02/26/08	8058179
	111	(77 - 115)	3.1	(0-25)	MCAWW 351.2	02/25-02/26/08	8058179
		Dilution Factor: 1		Analysis Time...: 15:00			
Total Suspended Solids		WO#:KG4701AC-LCS/KG4701AD-LCSD LCS Lot-Sample#: D8B130000-527					
	91	(86 - 114)			MCAWW 160.2	02/13/08	8044527
	96	(86 - 114)	5.3	(0-20)	MCAWW 160.2	02/13/08	8044527
		Dilution Factor: 1		Analysis Time...: 19:00			

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

**LABORATORY CONTROL SAMPLE DATA REPORT**

**General Chemistry**

Lot-Sample #...: D8B110153

Matrix.....: WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECVRY	RPD	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Ammonia as N								
							WO#:KG8XE1AC-LCS/KG8XE1AD-LCSD LCS Lot-Sample#: D8B180000-213	
	4.00	4.05	mg/L	101		MCAWW 350.1	02/15/08	8049213
	4.00	4.01	mg/L	100	1.0	MCAWW 350.1	02/15/08	8049213
				Dilution Factor: 1		Analysis Time...: 10:00		
Chemical Oxygen Demand (COD)								
							WO#:KG80V1AC-LCS/KG80V1AD-LCSD LCS Lot-Sample#: D8B180000-238	
	100	107	mg/L	107		MCAWW 410.4	02/13-02/15/08	8049238
	100	105	mg/L	105	2.0	MCAWW 410.4	02/13-02/15/08	8049238
				Dilution Factor: 1		Analysis Time...: 07:00		
HEM (Oil and Grease)								
							WO#:KG2TQ1AC-LCS/KG2TQ1AD-LCSD LCS Lot-Sample#: D8B130000-191	
	40.0	37.5	mg/L	94		CFR136A 1664A HEM	02/13/08	8044191
	40.0	36.4	mg/L	91	3.0	CFR136A 1664A HEM	02/13/08	8044191
				Dilution Factor: 1		Analysis Time...: 11:00		
Nitrate-Nitrite								
							WO#:KG8311AC-LCS/KG8311AD-LCSD LCS Lot-Sample#: D8B180000-268	
	4.00	4.19	mg/L	105		MCAWW 353.2	02/15/08	8049268
	4.00	4.15	mg/L	104	0.98	MCAWW 353.2	02/15/08	8049268
				Dilution Factor: 1		Analysis Time...: 10:00		
Total phosphorus								
							WO#:KG7GN1AC-LCS/KG7GN1AD-LCSD LCS Lot-Sample#: D8B150000-376	
	0.500	0.453	mg/L	91		MCAWW 365.3	02/12-02/15/08	8046376
	0.500	0.449	mg/L	90	0.88	MCAWW 365.3	02/12-02/15/08	8046376
				Dilution Factor: 1		Analysis Time...: 11:00		
Total Kjeldahl Nitrogen								
							WO#:KHNX91AC-LCS/KHNX91AD-LCSD LCS Lot-Sample#: D8B270000-179	
	3.00	3.23	mg/L	108		MCAWW 351.2	02/25-02/26/08	8058179
	3.00	3.33	mg/L	111	3.1	MCAWW 351.2	02/25-02/26/08	8058179
				Dilution Factor: 1		Analysis Time...: 15:00		
Total Suspended Solids								
							WO#:KG4701AC-LCS/KG4701AD-LCSD LCS Lot-Sample#: D8B130000-527	
	100	91.0	mg/L	91		MCAWW 160.2	02/13/08	8044527
	100	96.0	mg/L	96	5.3	MCAWW 160.2	02/13/08	8044527
				Dilution Factor: 1		Analysis Time...: 19:00		

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

**MATRIX SPIKE SAMPLE EVALUATION REPORT**

**General Chemistry**

Client Lot #...: D8B110153

Matrix.....: WATER

Date Sampled...: 02/12/08 12:20 Date Received...: 02/15/08

PARAMETER	PERCENT RECOVERY	RPD	METHOD	PREPARATION-	PREP
	RECOVERY LIMITS	RPD LIMITS		ANALYSIS DATE	BATCH #
Ammonia as N		WO#: KG0LR1A5-MS/KG0LR1A6-MSD	MS Lot-Sample #:	D8B120183-001	
	75 N,I (90 - 110)		MCAWW 350.1	02/15/08	8049213
	81 N,I (90 - 110)	2.2 (0-10)	MCAWW 350.1	02/15/08	8049213
	Dilution Factor: 1				
	Analysis Time...: 10:00				
Chemical Oxygen Demand (COD)		WO#: KG0R91D6-MS/KG0R91D7-MSD	MS Lot-Sample #:	D8B120207-001	
	92 (74 - 109)		MCAWW 410.4	02/13-02/15/08	8049238
	90 (74 - 109)	1.8 (0-11)	MCAWW 410.4	02/13-02/15/08	8049238
	Dilution Factor: 1				
	Analysis Time...: 07:00				
Nitrate-Nitrite		WO#: KG4GJ1CP-MS/KG4GJ1CQ-MSD	MS Lot-Sample #:	D8B140198-001	
	94 (72 - 113)		MCAWW 353.2	02/15/08	8049268
	92 (72 - 113)	2.1 (0-17)	MCAWW 353.2	02/15/08	8049268
	Dilution Factor: 1				
	Analysis Time...: 10:00				
Total phosphorus		WO#: KGNE01AL-MS/KGNE01AM-MSD	MS Lot-Sample #:	D8B060320-001	
	111 (71 - 128)		MCAWW 365.3	02/12-02/15/08	8046376
	102 (71 - 128)	5.5 (0-22)	MCAWW 365.3	02/12-02/15/08	8046376
	Dilution Factor: 1				
	Analysis Time...: 11:00				
Total Kjeldahl Nitrogen		WO#: KG7CG1AC-MS/KG7CG1AD-MSD	MS Lot-Sample #:	D8B150336-006	
	108 (54 - 131)		MCAWW 351.2	02/25-02/26/08	8058179
	114 (54 - 131)	2.8 (0-38)	MCAWW 351.2	02/25-02/26/08	8058179
	Dilution Factor: 1				
	Analysis Time...: 15:00				

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

I Estimated result. Result concentration exceeds the calibration range.

**MATRIX SPIKE SAMPLE DATA REPORT**

**General Chemistry**

Client Lot #...: D8B110153

Matrix.....: WATER

Date Sampled...: 02/12/08 12:20 Date Received...: 02/15/08

PARAMETER	SAMPLE	SPIKE	MEASRD	PERCNT		PREPARATION-		PREP	
	AMOUNT	AMT	AMOUNT	UNITS	RECVRY	RPD	METHOD	ANALYSIS DATE	BATCH #
Ammonia as N	WO#: KG0LR1A5-MS/KG0LR1A6-MSD MS Lot-Sample #: D8B120183-001								
	7.6	4.00	10.6	mg/L	75		MCAWW 350.1	02/15/08	8049213
	Qualifiers: N,I								
	7.6	4.00	10.9	mg/L	81	2.2	MCAWW 350.1	02/15/08	8049213
	Qualifiers: N,I								
	Dilution Factor: 1								
	Analysis Time...: 10:00								
Chemical Oxygen Demand (COD)	WO#: KG0R91D6-MS/KG0R91D7-MSD MS Lot-Sample #: D8B120207-001								
	12	50.0	58.3	mg/L	92		MCAWW 410.4	02/13-02/15/08	8049238
	12	50.0	57.3	mg/L	90	1.8	MCAWW 410.4	02/13-02/15/08	8049238
	Dilution Factor: 1								
	Analysis Time...: 07:00								
Nitrate-Nitrite	WO#: KG4GJ1CP-MS/KG4GJ1CQ-MSD MS Lot-Sample #: D8B140198-001								
	0.67	4.00	4.44	mg/L	94		MCAWW 353.2	02/15/08	8049268
	0.67	4.00	4.35	mg/L	92	2.1	MCAWW 353.2	02/15/08	8049268
	Dilution Factor: 1								
	Analysis Time...: 10:00								
Total phosphorus	WO#: KGNE01AL-MS/KGNE01AM-MSD MS Lot-Sample #: D8B060320-001								
	0.32	0.500	0.872	mg/L	111		MCAWW 365.3	02/12-02/15/08	8046376
	0.32	0.500	0.825	mg/L	102	5.5	MCAWW 365.3	02/12-02/15/08	8046376
	Dilution Factor: 1								
	Analysis Time...: 11:00								
Total Kjeldahl Nitrogen	WO#: KG7CG1AC-MS/KG7CG1AD-MSD MS Lot-Sample #: D8B150336-006								
	2.7	3.00	5.90	mg/L	108		MCAWW 351.2	02/25-02/26/08	8058179
	2.7	3.00	6.07	mg/L	114	2.8	MCAWW 351.2	02/25-02/26/08	8058179
	Dilution Factor: 1								
	Analysis Time...: 15:00								

**NOTE (S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

I Estimated result. Result concentration exceeds the calibration range.



# Chain of Custody Record

# TestAmerica

4124 (0907)

Temperature on Receipt 5.6°C  
 Drinking Water? Yes  No  2/11/08  
 THE LEADER IN ENVIRONMENTAL TESTING

Client: Earth Tech Project Manager: Michelle Mason Date: 2/18/08 Chain of Custody Number: 408670

Address: 841 Bishop St Suite 500 Telephone Number (Area Code)/Fax Number: 808-523-8874 (322) Lab Number: 218103 Page 1 of 1

City: Honolulu State: HI Zip Code: 96816 Site Contact: Michelle Mason Lab Contact: \_\_\_\_\_

Project Name and Location (State): WGSLEF - Stormwater Carrier/Waybill Number: FedEx 8603 8289 1848

Contract/Purchase Order/Quote No.: 995 25587-L Matrix: \_\_\_\_\_ Containers & Preservatives: \_\_\_\_\_

Sample I.D. No. and Description (Containers for each sample may be combined on one line): WGSLE-DB01E Date: 2/7/08 Time: 1900

Sample I.D. No. and Description	Date	Time	Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed)
<del>WGSLE-DB01E</del>	<del>2/7/08</del>	<del>1900</del>	<del>✓</del>	<del>                             TSS (160.2)                              Total kjedahl Nitrogen (351.3)                              NO<sub>3</sub>+NO<sub>2</sub>-N (353.2)                              Ammonia (350.2)                              COD (410.1)                              Total Phosphorus (365)                              Oil &amp; Grease (1664)                              Alpha Terpineol                              Benzoic Acid                              p-cresol                              Phenol (6465230)                              Total Iron (500)                         </del>									

Possible Hazard Identification:  Non-hazard  Flammable  Skin Irritant  Poison B  Unknown

Turn Around Time Required:  24 Hours  48 Hours  7 Days  14 Days  21 Days  Other \_\_\_\_\_

1. Relinquished By: Pete LaPlaca Date: 2/18/08 Time: 1130

2. Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

3. Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Comments: \_\_\_\_\_

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

# FIELD INFORMATION FORM



Site Name: W6SL  
 Site No.:             
 Sample Point: W6SL-DBØ1E

**This Waste Management Field Information Form is Required**  
 This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:  
D8B11D153-09

**PURGE INFO**  
 PURGE DATE (MM DD YY): 020708  
 PURGE TIME (2400 Hr Clock):             
 ELAPSED HRS (hrs:min):             
 WATER VOL IN CASING (Gallons):             
 ACTUAL VOL PURGED (Gallons):             
 WELL VOLS PURGED:           

*Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.*

**PURGE/SAMPLE EQUIPMENT**  
 Purging and Sampling Equipment ... Dedicated:  Y or  N  
 Purging Device:  A-Submersible Pump  D-Bailer  
 Sampling Device:  B-Peristaltic Pump  E-Piston Pump  
 X-Other:  C-QED Bladder Pump  F-Dipper/Bottle  
 Filter Device:  Y or  N    0.45  $\mu$  or   $\mu$  (circle or fill in)  
 Filter Type:  A-In-line Disposable  C-Vacuum  
 Sample Tube Type:  B-Pressure  X-Other  
 A-Teflon  C-PVC  X-Other:  
 B-Stainless Steel  D-Polypropylene

**WELL DATA**  
 Well Elevation (at TOC):            (ft/msl)    Depth to Water (DTW) (from TOC):            (ft)  
 Groundwater Elevation (site datum, from TOC):            (ft/msl)  
 Total Well Depth (from TOC):            (ft)    Stick Up (from ground elevation):            (ft)  
 Casing ID (in):               Casing Material:           

*Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by State/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.*

STABILIZATION DATA (Optional)	Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) ( $\mu$ mhos/cm @ 25°C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L-ppm)	eH/ORP (mV)	DTW (ft)
	1 <sup>st</sup>								
2 <sup>nd</sup>									
3 <sup>rd</sup>									
4 <sup>th</sup>									

Suggested range for 3 consec. readings or note Permit/State requirements:  
 pH: +/- 0.2    Conductance: +/- 3%    Temp: -    Turbidity: -    D.O.: +/- 10%    eH/ORP: +/- 25 mV    DTW: Stabilize

**Stabilization Data Fields are Optional** (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.

**FIELD DATA**  
 SAMPLE DATE (MM DD YY): 020708    pH (std): 8.34  
 CONDUCTANCE ( $\mu$ mhos/cm @ 25°C):               TEMP. (°C):             
 TURBIDITY (ntu):               DO (mg/L-ppm):             
 eH/ORP (mV):               Other:           

**Final Field Readings are required** (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site).

Sample Appearance: Cloudy    Odor: None    Color: Light Reddish-brown    Other:             
 Weather Conditions (required daily, or as conditions change):               Direction/Speed: NE 15mph    Outlook:               Precipitation:  Y or  N

**Specific Comments (including purge/well volume calculations if required):**  
Discharge from out fall was observed at appx 1845  
Collected composite sample W6SL-DBØ1E at 1900  
- 4 aliquots sample at 15 min intervals

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):  
02/08/08    Pete LaPlaca    Pete LaPlaca    Earth Tech  
 Date    Name    Signature    Company

DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy